company commander was capable of putting it into operation, but who on the contrary were most diligent in their efforts to exclude me from any influence in its disposition, and countered my many suggestions with rebuffs. After the landing of American troops I was at least able to bring about the construction of some additional rhombic antennas, in order to permit coverage of the entire Mediterranean area. I had my own maintenance men do this work, to avoid the red tape of dealing with Luftwaffe construction engineers, and the offices who controlled them. This installation enabled us within a short period to clarify the whole West African ground organization.

Female Auxiliaries

In the fall of 1942 the battalion received its first increment of air Wacs to be used on the intercept sets and in the evaluation company. A year before I had forseen an increasing shortage of personnel and suggested to the Chi-Stelle to lay their hands on a quantity of air Wacs suitable for assignment to the Signal Intelligence Service. I maintained that if the German Post Office Department could work with female radio, telephone, and teletype operators, that we could do the same in the Signal Intelligence Service. At the time, the suggestion was dismissed with the retort that women were not well suited for Signal Intelligence work. Now, because of the prospective shortage of male personnel the use of female auxiliaries was commended from above. I can only say that the girls I had as radio operators, whether in message center or in intercept work, did most excellently, and that my section chiefs agreed with me in this opinion. My girls often proved that they were better suited to radio work than the average soldier. So towards the end of the war I ran the regimental message center, a signal center with fourteen transmitters, and traffic posts, exclusively with air Wacs, except for two section chiefs.

Commander Relieved February 1943

In the course of another inspection of the unit by General Martini, the incapacity of the battalion commander became so crassly evident, that shortly after he was relieved of his command. But instead of learning the lesson of experience, and giving this man a job where he could do no more harm, once again he was entrusted with a battalion which up to that time had given good results, but under his leadership soon sank so low that after unceasing protests from higher echelons, he was in turn removed from this post. Not until then did he finally drop out of the picture for good.

Battalion Commander SIS Southeast

After I had thus gotten back into the swing of my work, I took up the matter of the orphaned radar intercept company, which was still helpless in the face of its mission. As I had witnessed the change over from low frequency to high, and from high to VHF in all their phases, on the sets and in evaluation, I could clearly see, that now the day of electronics had arrived and that herein lay the future

of the Signal Intelligence Service. Out of these experiences I worked principally against all tendencies that were directed toward making radar intercept a separate enterprise, which was done for thoroughly understandable human reasons that were basically wrong however in practise.

Combining Radar Intercept with Signal Intelligence Evaluation

To start with I transferred the staff of the radar company into my evaluation. This provided the exterior framework for cooperation between radar intercept and signal intelligence. Then I called to life the office of radar control, which up to this time had existed only on paper, set up new out-stations, increased the company's personnel and equipment, gave it clearly defined assignments, sent officers and enlisted men on temporary duty to radar intercept stations along the English Channel in order to gain experience, made liaison with the German Radar Intercept Service to provide training for my men, and laid the foundation of the processing of enemy navigational aids and aircraft tracking by radar in the Mediterranean Theater. In order to handle the mission adequately, I increased my radar intercept service by one additional company whose job was coverage of SAW and aircraft reporting nets.

VHF Coverage in the Eastern Mediterranean Spring 1943

Together with the already mentioned incorporation of the 9./40 company (in Crete) into my battalion, problems of ground-air and air-air traffic once more became the center of interest. Above all it was important to find a workable method of intercepting VHF, for the British changed over all their fighters with very few exceptions to VHF communications in the Mediterranean in 1942. Our engineers declared the problem insoluble because in the Mediterranean it was sometimes necessary to span distances over 1000 kilometers. I did not allow myself to be distracted by the ponderings of the theoreticians, and sent a reconnaissance team to the mountains of Crete with instructions that they make observations at different altitudes, especially along the coast so that there was nothing but water in the foreground. The men showed great enthusiasm for this enterprise, and did not shy away from the greatest efforts under conditions of intolerable heat, water shortage, and skimp rations. Success was most surprising; in some places VHF R/T could be heard perfectly at distances of 1200 kilometers. It turned out subsequently that reception of this sort depended very much on the weather.

Antenna problems

The principal problem was that of antennas. Receiving and the D/F antennas which our radio industry constructed for intercept work along the English Channel proved entirely inappropriate for use under the conditions in which we had to work. The winds that prevailed on these mountains would either bend them out of shape or uproot them very

soon despite the best anchoring that could be devised. So after much experimentation we developed a new type of dipole antenna. Fortunately this type proved not only more durable, but improved reception notably.

Technical War, Backwardness of our Industry, Difficulties in obtaining sets

As a radio amateur and technician of long standing, I had anticipated the technical war on the part of England and America long since. I was thoroughly convinced that HF was a thing of the past and that the enemy had already invaded the field of electronics. To our misfortune we had been very short sighted in these matters. Whereas in 1933, and thereafter, every amateur radio operator was deprived of his transmitting license for political reasons, and was thus bereft of all further incentive towards radio technical research, in the Anglo-American countries the amateurs were enormously encouraged and protected by a favorable policy. And these amateurs to no small extent are to be thanked for the progress made in these fields. I could see all along how the enemy managed to effect constant improvements in their VHF technique while we remained static once we had achieved something. This applied to radar as well. Whereas until the end of the war the set used by our ground troops remained very difficult to move around, our enemy would be able to set up a splendid SAW service in a country right after occupying it. I mentioned this time and time again in the course of lectures to higher staff officers. On every possible occasion I presented these developments for the observation of my officers and technical men, and planned my operations accordingly. Unfortunately I always encountered great difficulties in obtaining sets, and by a lack of understanding on the part of my superiors whose business it was to help solve my problems in the case of replacements of VHF sets, I was either very meagerly served or completely ignored. And in this situation the personal element played an unfortunate part. While we who were stationed in the Southeast were surrounded by guerilla bands, in a land with a crumbling internal economy, unpleasant climate, and short rations, those in France and Italy, as far as they had good enough connections, made the most luxurious purchases and lived very generously. So I very rarely received any visitors from Germany; indeed I can remember only two or three, whereas other countries were visited most frequently. Being matter of fact, I was not the man to scour the land for edibles with which to win favors; and in this respect my officers had also kept their hands clean. Accordingly we were slighted. But in spite of straightened circumstances, by helping ourselves we were able to perform intercept coverage over large areas with limited means, and to monitor these areas successfully. In 1943 my battalion was responsible for coverage of the area from the Adriatic Coast to the Crimea, including the Aegean islands and the Dodecanese.

Importance of the Southeast

During all these conferences and discussions concerning my need for equipment, Berlin always responded that the Balkans were of minor importance in the military scheme. I admit that compared to the

colossal battle raging in the East, the intensely bitter fighting in Italy, and the huge preparations for the invasion in the West, the Balkan area was a quiet theatre. But I always emphasized that a loss of the Balkan States, or even a change in their political complexion, might mean for us the loss of the war. In this I believe I saw far more clearly than my superiors upon whom rested the decision concerning my requests, namely, that without Roumanian oil we would be unable in the long run to continue the war. In fact, the treachery of Roumania proved that in spite of the utmost exertions put forth by the German people, the war was lost.

Fighter Warning Traffic Spring 1943

As soon as I became battalion commander, I forbade the operations of airborne R/T interceptors as it had just been reported to me that the twenty-fourth of these had been shot down; and especially because in the last months they had been participating in missions without a receiving set, only for the purpose of calming the recce crews who were accustomed to having them along. I felt that further expenditure of such valuable personnel was not to be tolerated. The flying R/T intercept operators had accomplished great things during the time that the British fighters still used HF communication; but when the British changed over to VHF, our industry never caught up with them, because until the end of the war it never managed to turn out a VHF receiver according to the specifications of the Luftwaffe Signal Intelligence Service. However, this fact could not be told to the recce crews, whose daily flight to Alexandria was becoming more and more of a death flight, thanks to the deadly accurate British radar and the might of their defensive fighter arm. But still the High Command could not pass up the visual observation and photographic reconnaissance of the Allies, principally because life on the scantily-garrisoned and guerrilla teeming Balkans indicated more than anywhere else the symptoms of a pending invasion. So I set up in Rhodes, Crete, and later on in Durazzo, Fighter Warning Stations, little Meldeköpfe, that combined the results of R/T and radar interception and transmitted them to the Recce planes on their tactical frequency.

Cooperation with the Navy in the Aegean Sea May, 1943

When the Western Mediterranean was lost by the fall of Tunis, the Navy tried to make their positions in the Aegean more tenable. In order to intercept the naval radar of the British, the German Navy installed on some of the islands of the Aegean radar intercept stations, and, since they could afford no specialists of their own, I was assigned the planning, organization and direction of these stations. Command of this new enterprise constituted for me a most welcome reinforcement of personnel and equipment, because in this way my own stations were made available for other tasks. Collaboration with the Navy took place without friction, and proved very successful. If we had had only one submarine chaser things would have gone badly for the Allied submarines.

But at any rate this service at least vouchsafed a considerably longer life to our last Naval ferries.

ming Company
the Mediterran-
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2 - 1943

In order to jam the ASV of the British recce planes, a radar intercept company was transferred to Crete in April 1942. While this company was quite successful on interception, the results of their work unfortunately were not exploited due to a lack of co-ordination with other units as, for instance, fighter control co-operation with Company 9./40, already stationed in Crete, and which would have been the most natural thing to do, failed because of personal differences existing between officers of the respective units. As a result the jamming company sank gradually into oblivion. As the officer responsible for all SIS in this theatre, the Lt.Col. we have already several times mentioned didn't know what to do with the company, meanwhile the losses of Axis shipping in the straits of Sicily had reached such intolerable proportions that it was decided to transfer the bulk of the idle company in Crete to the western Mediterranean. I am uncertain of the results obtained there by this company, but judging by continuing losses of Axis shipping, I would say they were not significant. Naval officers complained bitterly of the lack of success, generally, of jamming operations.

Formation of Luftwaffe Command South-east.
Spring 1943

In order to assemble under one command all the battered and weakened Luftwaffe Units in the Balkans, the Luftwaffe Command Southeast was formed in the Spring of 1943, and my battalion was designated number three in the Air Signal Regiment belonging to it. My relations with the regiment, whose commander was not even allowed to set foot on my post for security reasons, was not a very enjoyable one. But General Gosewisch was named chief signal officer for this Luftwaffe Command, he who had already given me much encouragement and support when I was in France. Thus began the golden age of my battalion, made possible by the fact that the chief signal officer had us always in mind; then too the commanding general took great interest in our work, and concerned himself to a great degree with the Signal Intelligence Service, and often offered suggestions for improvements and innovations to me personally.

Closest Cooperation with the Staffs; Hey-Day of the Battalion
1943 - 1944

Thus the connection between Signal Intelligence and the High Command in the Southeast became particularly close. In August 1943, the Commanding General made a thorough inspection of the battalion. As an expression of his satisfaction he granted us a special supplementary ration and awarded distinctions to especially deserving soldiers. I was called in to brief him at least once a month. He studied all our reports most carefully, suggested changes, and provided great stimulus to our work. No small part of my tactical knowledge I owe to him. The subsequent development of the battalion would have been impossible without his good will and support, especially since the opposition and enmity we encountered from the Chi-Stelle in Berlin, and the superannuated organizations like the Ground Observer Service did not grow weaker

as the work increased and we explored new territory.

Setting up MF D/F Base line Summer 1943

In order to secure fixes on Allied radio beacons and navigational aids, I had an MF D/F base line set up for the Mediterranean. It served us well in the checking changes of location made by American units, for American flying units had the peculiarity of moving their beacons around with them when they transferred to another field.

Four-figure traffic deciphering platoon transferred to Berlin Summer 1943

At this time the platoon that had cracked the British four-figure traffic was ordered by the Chi-Stelle transferred to Berlin. The practical reasons given for this move were insufficient; the Chief of the Referat E saw therein merely a question of prestige, and wanted to make sure this time that he himself got credit for any successes that might derive from this work. The difficulties of deciphering four-figure messages increased from month to month; although the use of business machines was introduced in the work on the code book after this transfer, cracking of this code was no longer possible.

Jamming operations in Rumanian Oil Sector

In the Fall of 1943, Berlin ordered a jamming service set up in Rumania to protect the oil wells and surrounding installations. I opposed any such project from the start, since the Hyperbola navigational aid, which our equipment was principally designed to jam, was definitely not used by heavy bomber formations of the Fifteenth Air Force in missions to the Balkans. In the Chi-Stelle a pallid theoretician was working on radar matters. Because of his considerable knowledge of the subject he would certainly have done well the industrial side of radar development, but proved a failure in the tactical end of it many times over. The treachery of Rumania halted any further waste of valuable equipment, which was getting scarcer and scarcer elsewhere.

Visit to the SIS in the West Fall 1943

On the insistence of my commander I took a trip to France during this time, to study the preparations for the Invasion made by the Signal Intelligence Regiment West. I set out on this trip without enthusiasm, as I knew what the SIS organizations in the West were doing from the reports they sent in every month. Moreover, I was reluctant to depart at the time because of the plans I had for my own battalion and was loth to turn over the command to anyone else. Therefore I confined myself to visiting the regiment which had grown out of W-Leit 3, familiar to me from 1940-1941.

It had waxed fat in more senses than one. While in the South, in anticipation of a war of movement in my sector, I held my units under field conditions as much as possible and had begun to install my transmitters and signal centers in busses, Meldekopf 2 in Paris, on the other hand, was the picture of magnificence, surrounded by landscaping which provided a whole crowd of French gardeners with their

daily wage. We used to refer to it in fun as the "Meldeschloss". (Signal Castle). Inside, along with a collection of electrical fandangoes to dazzle the eyes of the General, there was of course no lack of the rugs, curtains, overstuffed furniture, etc., so necessary to operations. The same sort of operational asceticism adorned the War Room of the Commander of the 3rd Battalion, who lived in a wing of the Rothschild castle in La Celle St. Cloud. Here there was a map with different colored lamps for different British and German organizations, HF, VHF, and MF, D/F base lines, radio beacons, operational headquarters, outstations, radar intercept stations, anyone of which could be illuminated by turning on the right switch. It made me feel as if I were seeing a movie. At this time the regimental and battalion commanders were directing the lion's share of their interests to getting up a Signal Intelligence picture book, which showed in childishly graphic style how the different intercept operators and evaluators did their work. When I tactfully explained that I couldn't spare the time for a corresponding opus for the South, as my men were too busy, they promised to put me on the distribution list. This is how the tactical preparations looked which the Signal Intelligence Service was making against D-Day. The military aspect was scarcely any improvement. True, the parks were disrupted by a continuous plague of molehills, which the NCO's and EM's had to shovel away when they got off duty, but the battalion itself was billeted in forty-six different villas in the neighborhood, making it absolutely impossible to reach an officer or a technician after working hours. Out of twenty-five companies in the regiment, only two were motorized, as a subsequent report of the regimental commander revealed. There were plenty of receiving sets on hand, but training of the operators was not started until four days before D-Day, as was reported to me by one of my own officers, whom I used to send up there from time to time in order to learn from this horrible example of military decay. When the regiment went entirely to pieces during the invasion, and either lost or had to destroy most of its equipment, it was only a natural consequence of this kind of preparation, to which a worthless staff section and four years of general softening-up of the army by the occupation life made their contribution. The French women must be credited with no small part of this.

Transfer to Salonika Fall 1943

In view of the continual worsening of the military situation in the Mediterranean, the Luftwaffe Command in 1943 withdrew from Athens and installed itself in the more centrally and favorably located town of Salonika. The work of the SIS battalion had already become such an intimate part of staff functions that the General ordered that it should move too. With the exception of one company, which I left behind to take care of the Tenth Fliegerkorps in Loutsa, and the outstations in the Aegean, Crete and the Dodecanese. I took my three

remaining companies along to Salonika. The problems of billeting were considerable, because Greeks could not be evicted from their homes. In the end, despite the beginning of the autumn season, the battalion had to put up in summer houses once again until a sufficient number of barracks could be built. At first living conditions were an improvement over what we had become accustomed to, but when additional German units started to stream in, conditions sank to the customary low level of the rest of Greece. At that time an attempt was made to make the German base pay equivalent in Greek currency; but the corrupt Orientals caused this to engender a new inflation. The guerilla bands could already be considered the real rulers of the country. The nationalist bands were favorably disposed towards the Germans, but couldn't stand the Italians. Men in my out-stations were assisted, and often invited to drinking-bouts by some of them. Later the EAM fought with us in our sector against the Reds of the ELAS in Greece.

Signal Intelligence Installations in the Adriatic Second half of 1943

When after the fall of southern Italy, the heavy bomber groups of USAAF transferred from Benghazi to Foggia, and the road from Otranto was open to enemy attack, I set up a strong intercept platoon in Tirana, Albania, and built a girdle of VHF and radar intercept stations along the Adriatic coast. The work of these small teams stationed in the middle of the guerilla area, cut off from every contact with the outside world, was not easy. As no convoy under company strength ever contemplated passing through the area, since it would have been annihilated by the guerilla bands, it sometimes took months before an urgently required piece of apparatus could be delivered where it was needed. Raids on out-stations, cut telephone wires, were every day occurrences. I had the positions equipped with light flak, and the teams instructed in its use. Once a courier with my monthly report was intercepted on his way. Berlin demanded an accounting for this, and raised a terrible disturbance. No one showed the least understanding for the desperate circumstances of my men. I did the best I could to alleviate their lot. I personally took care of the distribution of Special Service equipment such as books, magazines, games, etc., as a matter of principle, because I knew how the different offices on the way down could hold up this distribution. When the platoon in Tirana was made into a company in the spring of 1944, I gave my best company commander charge of it, and saw that the men were sent on temporary duty and to service schools as much as possible for the sake of relief. It is true that my own good will was notably limited by the bulk of work to be done and the shortage of personnel. The work of these stations was a matter of life and death to the Me 109's sent up on reconnaissance of the Adriatic, and laid the foundations for the Aircraft Tracking Service which will be treated later.

Battle of the Aegean Islands Fall 1943

After the betrayal by Italy, it was essential for the German Army in the Balkans to recapture the numerous islands around Greece which the Italian garrisons had turned over to the British immediately.

The German counter-expedition was undertaken with great bravery by small but carefully selected forces. Kos, with a garrison of two to three thousand men, was taken by a single Parachute Infantry company. Leros, one of the strongest fortifications in the Mediterranean, was conquered by four hundred men. This was the last flare-up of the old German good luck in arms. Radio Intelligence kept tabs on all enemy movements which were reported by the aircraft warning nets and the Turkish police net, which was most helpful to the undertaking. The signals documents captured on the island of Kos belong among the most valuable intelligence finds of the whole war. Besides, they bore witness to the comprehensive thoroughness and extensive reliability of our service.

Signal Intelligence Liaison Officers. Ground Observer Service Fall 1943

From Salonika there followed a further increase in the radar intercept and VHF D/F base lines, due to the intrusion of American heavy bomber formations in the Balkans. I appointed Signal Intelligence liaison officers for the fighter control stations for Bulgaria and Rumania. Here the Signal Intelligence service took over the function of the ground observer service. Due to a desire not to hurt the feelings of certain old men of high rank, no one had had the courage to reorganize or dissolve this service, even though it demonstrated itself to be more and more out of date and superfluous alongside of the increasing successes of the Signal Intelligence Service. On account of this, 100,000 soldiers in the German Army as a whole, were prevented from being used in a more purposeful capacity. I repeatedly made the suggestion to the chief signal officer to send the 10,000 ground observer personnel who were standing around on the mountains of the Balkans alone, back where they could be put at the disposal of the armament industries, where their presence alone would have inhibited the thousands of acts of sabotage committed by the foreign workers. The Chief Signal officer of the Luftflotte Command was prepared to give up the greater part of the men, but General Martini refused to give the final approval. So, with the backing of the Chief Signal Officer I set about seeing that the equipment and technical installations of the ground observer service at least were working as their task required, which enterprise was looked upon with great disfavor by their commanding officer. He was a superannuated colonel whose most significant trait was the propensity for acquiring and eating up unusually large quantities of food, and he did not like to see his men get back to where they had to do some work. I succeeded in having my stations tied into those of the ground observer service by direct line, so that their radar installations could be directed by my D/F stations.

The Battalion Communications Net

As the telephone communications net in the Balkans was very sparse, and the few lines at our disposition were constantly going out because of sabotage and guerilla activity, I set up the communication net of the battalion on W/T channels from the start. For I could call my company commanders on the telephone only rarely, and then only by using security language, as there were radio links in the channel. We were generally accustomed to this situation. Therefore I placed great emphasis on the improvement of our own communications net, the security of our ciphers, good discipline, and rapid dispatch of radio traffic. The experience I had had in watching the Allied communication nets stood me in good stead in setting up a secure and efficient net of my own. I was even glad we were short on telephone communications, because it forced us to prepare for mobile warfare without depending on a lot of aids to operations, and gave my men the chance to work themselves into their jobs before the mobile war became a fact. By close supervision and constant practise and improvement, the performance of my W/T and message center personnel, partly female, became so exemplary that the Chief Signal Officer used my command net rather than the one of the Luftflotte; and towards the end of 1944 General Martini sent one of his staff officers to my headquarters with the mission of studying my radio communication methods.

Transfer to Pantchova January 1944

For communications sake, the Luftwaffe Command Southeast was transferred from Saloniki to Pantchova, near Belgrad, in January 1944. Once again the Signal Intelligence battalion had to go along, and the commanding general had his own construction office build our living quarters and operational buildings. The intercept installation in Pantchova which we put up had twenty-five rhombics, the largest installation of its kind in Europe. It enabled us to cover the area from Turkey to Casablanca. I took the battalion staff, two intercept companies, one jamming company, and an evaluation company to Pantchova and I left one intercept company behind in Athens. Pantchova was a small city of the typical Serbian type, without paved streets or sewage ducts, but it was the first place in which my men really got enough good food. The only trouble was that the place was saturated with staffs of one sort or another, and there were many arguments over military externals, which were provoked most often by those superior officers who had precisely no other way of showing their authority.

W-14 Premstatten January 1944

At the same time I transferred a part of my female radio operators, sixty-five in all, to the old W-14, the permanent Signal Intelligence station in Premstatten near Graz in Styria, from where the coverage of the southeast originated. In so doing I made sure of one base of operations in the Reich, to which I could withdraw immediately our positions in the Balkans collapsed.

Collaboration with the Navy in the Adriatic January 1944

At this time the Navy set up numerous new radar intercept stations in the Adriatic. Although these stations were not exactly under my command, I had a say in the way they were set up, and in the operations against the naval radar installations on board Allied vessels. In spite of the Navy's backwardness in electronics, the collaboration with our own stations was most profitable throughout. The ferry service and the expeditions against the guerilla bands on the islands would not have been possible without our watchful support.

Radar Command Post southeast. Beginning of 1944

Within the inner circle of the Signal Intelligence Service at this time, the radar command posts attracted a great deal of attention. They had grown up as independent stations alongside the Meldeköpfe, as a result of the rapid expansion of the radar intercept service. Against all orders and directives from Berlin, I kept mine on as a part of the Evaluation Company, but used this opportunity to assign it clear-cut missions. I had it do research on the manner of operation of enemy radar apparatus, examination of captured material, evaluation and plotting of D/F bearings, investigations of enemy jamming, and make suggestions as to how our own radar could be made invulnerable to it. Measurements of frequencies from IFF sets, and the spotting of MF beacons and their method of operation were also part of this task. As I had always been short of good personnel, I combed my entire battalion for VHF technicians, and after giving them some training at the hands of the German radar service, I set them up as specialists in radar intercept matters. Besides I had a two weeks course in the German radar intercept service given during the morning and evening hours, and made the attendance obligatory for officers and evaluators.

"Flamme" coverage

Towards the end of 1940 the radar intercept stations of the Reichspost on the English Channel picked up a signal from an apparatus which made for many headaches among the technicians. The first inkling of the manner of operation of the so-called"pipsqueak" was obtained from the R/T traffic. For it served the fighter controls for the controlling of day and night fighters, prior to the development of more complex procedures. Although many messages and PWI reports soon helped reveal the function and purpose of this apparatus, it was nonetheless a long time before we succeeded in capturing one in good condition, as the explosive charge built into the set was so delicate that it was touched off even when the plane made a rough landing. Finally a British fighter landed on a German airfield in Normandy, thinking he had his own home base below him. In this way the IFF first came into our hands intact. Not until long afterwards did we get the second from a Spitfire which made an emergency landing.

The IFF was first D/F'ed by a radar intercept D/F, and the bearings were used to give our fighters advance warning. However, it had meaning only in connection with the watching of R/T traffic. After examining

the captured IFF, we set about building a VHF transmitter which would trigger the IFF, and thus make it serve us in flight path tracking. Because of faulty construction, the successes of this transmitter were negligible.

The jamming of German radar installations by the Allies both from the air and from the ground took on such proportions that the greater part of the sets needed for operations were rendered temporarily useless, and our own Fighter Control was interfered with accordingly. For this reason a German radar was developed in the general frequency range of the Allied radars. It was the Freya-D, called "Dora Insel". The first Dora Insels were used in Germany and France. The recognition blip which the IFF registered on the scope of the Dora Insel was called the Flamme, and at first no great value was set by it. The Dora Insels were then introduced in the Southeast. Since the time of the improvement in the operations of the Radar Command Post in the Southeast, after it had come under my control as previously stated, I had a daily report sent in to me by the Ground Observer Service on the jamming they experienced in their radar sweeps. For this purpose I introduced a regular form sheet. It was noticed that every time an Allied mission flew within range, the Dora Insel was reported jammed. Upon examination of the picture drawn of the jamming pattern on the scope, we figured that it could be only the IFF that was causing it. Quite by accident, the frequencies of the Dora Insel and the IFF matched perfectly. So, with the help of our captured IFF, I instructed all Dora Insel crews in Flamme coverage. We numbered the different identification patterns (studs) and this gave us a most effective means of differentiating in our tracking between the units that flew in apart from one another. Since the IFF and the Dora Insel were both transmitters, the effective range of measurement was almost doubled. Every time an Allied mission was on the way, the Meldekopf notified the stations equipped with Dora Insel immediately, and these stations turned in their observations directly to the Meldekopf. Thus, thanks to the Flamme, the 205th British Bomber Group could be told apart from the Partisan Supply Dropping planes, both of which were most difficult to identify because of their good radio discipline. From then on the 205th Bomber Group was not only spotted as such when it was still in the assembly area, but the strength of the mission and the course of flight could also be predicted in the same good time, because some "Flammen" always appeared when they were on their way to the target. The same practise used against the Partisan Supply-Dropping planes enabled us to tell strength, course, dropping targets, and concentration areas of Partisans.

The triggering of the "Flamme" by our Dora Insels made it possible to D/F the IFF with our Radar intercept D/F. These last were called "Sägeböcke". The Sägeböcke gave valuable bearings and fixes for the Flight Tracking Service.

After I had convinced the Fighter Control Center, (to which the Aircraft Warning Service was subordinate), and the Chief Signal Officer,

of the enormous importance of Flamme coverage, I made a suggestion. It was to track all enemy formations in the Southeast sector with Flamme, and for this purpose I requested that all stations with Dora Insel be put under the operational command of Radio Intelligence. The lead set was to be a Dora Insel in Durazzo, where I had my best-situated VHF intercept station. The lead set was to identify the units already picked up and spotted from the take-off traffic by the SIS according to the IFF stud they were on, and pass this information on to the radar intercept stations, which, as was proved in an entirely successful test, made it possible to track the enemy formations from take-off to landing, during the course of the whole mission, and never to lose touch with them as long as they were airborne. Due to the embittered objections voiced by the Ground Observer Service, which saw itself thus condemned almost to complete extinction, the retreat from the Balkans, and the immeasurable sluggishness and bureaucratic involvements of the German radar intercept operations section of the Chi-Stelle, my plan was never carried out. When later on I found time to get back to it, the enemy seemed to have become aware of the treacherous possibilities of the IFF, as stringent regulations came out on turning off the IFF, and for safety's sake, most of the sets were taken out of the planes.

Battalion Conference

In March 1944, I ordered a conference between all officers and team leaders of the battalion, to be held in Pantchova. From the point of view of transport it was most difficult to get all the men off the scattered islands of the Aegean and the Peloponnesus, as well as from Albania, especially as the land routes were mostly barred to us by the Partisans, and many men required more than ten days for the trip. The conference, which was for a general exchange of experiences, lasted three days, and I was overcome with pride in my men, to see how these soldiers attacked their problems with such enthusiasm, after years on end of isolation in such remote outposts of civilization. The work was aided and abetted by this opportunity to get to know each other and exchange experiences. In these three crowded days, conferences on the results of the work of the SIS, and the latest developments and experiences were held, and we discussed the goal which we would set ourselves for the coming year. To my great satisfaction I could see in the following months how this round-table discussion had borne abundant fruit.

Expansion of the Meldekopf

In order to provide the Fighter Commands Balkans with flash reports I set up a Meldekopf in Pantchova, together with my evaluation company, from which the Fighter Commands of Rumania, Bulgaria, Hungary, Albania and Greece were served with our flash reports. The information sent in by the teams, and the forwarding of this information was accomplished almost exclusively by W/T; and by constantly drilling my W/T operators I succeeded in reducing the time of processing, that is the encoding, transmission, reception, and decoding of a flash message

down to from one to one and a half minutes. This was the result of unflagging efforts on the part of my men, who under constant danger from partisans, tucked away on their lonely mountains or forgotten islands, and ever suffering from lack of personnel and supplies, faithfully carried out their duty without letting these factors interfere, and without any hope of personal advancement or special recognition. Unfortunately I was never able to make my superiors in the Chi-Stelle in Berlin take these circumstances into account, to say nothing of the idea ever crossing their minds to visit one of these places. Later the Meldekopf moved into an air raid shelter especially built for them.

Intercept Company Constanza, May, 1944

The frequent attacks of Allied heavy bombers on the Rumanian oil well region, as well as the occasional triangle flights of the USAAF (Foggia, Poltava, Great Britain) made it necessary to expand my organization further. Therefore I asked General Martini to have the 16/4 company in Constanza made part of my battalion. 16/4 was directly under the Chi-Stelle, and commanded by a pleasant old captain who enjoyed notably good connections in officer's clubs. He with his three officers and 150 men led the good life in the comfortable little town. They had exactly one receiver operational, which served to cover the Black Sea traffic. Once again I took advantage of this welcome opportunity to move in and straighten things out. The first thing I did was to have all the officers relieved, and replaced them with young, capable ones from my school. Then I increased the coverage of the Black Sea, and took on the coverage of the Russian seaplane traffic. I moved my Turkish section there, and put my radar intercept stations along the Turkish border under this company's command. Soon the tactical stations began to notice the change which had come over the place. After the first week I got my first letter of commendation. The unit played a decisive part in the evacuation of the Crimea, and in the subsequent retreats from the Ukraine. When the upset came about in Rumania, half of the men managed to fight their way through to the German lines, while the rest had to share the dubious fate of a Balkan PW camp. The platoon which was saved became subsequently incorporated in the southern battalion of the SIS. Regiment East, after the reorganization of the Balkan units.

Combining of Signal Intelligence and Radar Intercept Service in the Individual Companies

In May 1944 I went against the orders of the Chi-Stelle in Berlin by so far combining signal intelligence and radar intercept in that I dissolved the purely Signal Intelligence and radar intercept companies, and set up mixed outfits with both services in them. In order to carry the process of unification through to my officer corps, I sent all signal intelligence officers at my disposition on temporary duty to radar intercept stations on the English Channel, and upon their return I required them to report in detail on the impressions and experience they gained. Conversely, I sent radar intercept officers to Signal Intelligence stations. The same went for evaluators and platoon leaders. These periods of temporary duty paid off well. The men were honestly

enthusiastic for the job, and made good use of their experiences. The successes which resulted from these steps ended by convincing even the unbelieving superiors in Berlin of the correctness of my methods. They finally realized that very soon there would be neither a pure SIS nor an independent radar intercept service, but only a Signal Intelligence Service. (Funkaufklaerung). I had been insinuating this idea into my monthly reports for some time. The West however, which ought to have been leading the way in such matter, hung on to the old method of doing things separately; that is but for one exceptional battalion commander who, disregarding proper channels, knew enough to derive intelligence out of the masses of reports that came in from the radar intercept stations.

eldekopf Vienna
ummer, 1944

The Chi-Stelle recommended that I cooperate to the fullest extent with Fighter Division 8 in Vienna. They wanted suggestions from me on the manner of conducting and setting up flight path tracking in the Balkans as far as the Rumanian oil centers on one hand, and the Southeast Reich area as far as Upper Silesia on the other, was concerned. I suggested a chain of reporting stations which all turned in their information to a Meldekopf in Vienna, where a radar evaluation section was already in operation. After a succession of conferences without result, they agreed to adopt my principle, but for personal reasons they put the proposed Meldekopf not under my jurisdiction, but under that of the Signal Intelligence Battalion Reich which had neither the necessary personnel nor the experience to take it on. From the beginning I had upheld the point of view that enemy formations should be tracked from take off to landing by a central of some sort, especially as the southern groups flew in a more scattered fashion than the Eighth USAAF and were harder to follow in their tactics and call signs. For instance, in the case of a raid on Upper Silesia, several different battalions were responsible for following their course, and it happened time and again that when the planes being followed were passed on from one battalion to another, they were either lost entirely or were only "passed on" in part. When the Fighter Control people complained, they asked again for my opinion. I attacked the idiotic separation between Signal Intelligence and Radar Intercept, the reasons for which separation were purely ones of jealousy, and which had been the standing policy by which the preposterous Battalion "Reich" had been doing business. But I was unable to prevail against the personal relations of the people responsible. As I had enough to do with the management of my own affairs in the Balkans, I didn't bother about this installation any more.

Promotion to Major

In May 1944, as a result of an inspection of my battalion by the Commanding General of the Luftflotte, I was promoted Major with favorable comment, much to the disgruntlement of my regimental commander, who hated the Signal Intelligence Service anyway. This made my

position in the regiment even worse than it was before.

me Scheduling

The abundance and variety of duties which each day represented for me were not to be dealt with except on a strict time schedule. At 0700 hours in my office there was a conference on the military situation with my company commanders and the battalion administrative staff. Here I gave the orders and special assignments for the day, and received the reports and heard the wishes and suggestions of my administrative officers and technicians. In this way I brought it about that my officers came on duty on time without my having to check on them personally. I also had the rest of my day free of any further administrative details, and I could devote myself to signal intelligence matters without interruption.

Around 1700 hours, when most of the missions were terminated, we had a conference on the radio intercept situation. All responsible evaluators and SI officers were present. When I was absent, my operations officer took my place. The purpose of this conference was to apprise every specialist of any new developments relating to his field of endeavor, to keep myself informed about the state of the work, and talk over problems in evaluation. All enemy flights were traced on a map with colored tacks. At the same time there was posted over the situation room graphic and geographic diagrams, and indications of the most important enemy organizations. When the Commanding General inspected my situation room, he liked it so well that he ordered his intelligence officer to provide him with one like it. After the conference I drove over to daily situation conference of the Chief Signal Officer, while the evaluation company was preparing the daily report for distribution.

Maintenance Platoon

Because of the sad experiences I had with engineering staffs, I enlarged my own maintenance department considerably. Under the leadership of an able civilian technician, I brought all the capable maintenance specialists of the battalion together in one large platoon, and put my maintenance department in charge of the technical installations of all my D/F stations, about 120 in all. This section also reconnoitered new sites, and set up the field equipment on them. Later I went against regulations, and installed all technical units that were not set up in the mountains, in vehicles. This made it possible for me to be fully operational 24 hours after a move, whereas the setting up of a permanent installation always took at least 1 - 2 months, due to the shortage of material. This maintenance department is to be thanked for the fact that despite the retreats from Athens to Attersee, in Bavaria, I was fully operational up to the last day of the war, whereas all other Signal Intelligence units had been out of business for weeks and sometimes months. At its peak the maintenance department was fifty men strong.

Intercept Platoon Stara Zagora Summer 1944

When Turkey started to move over to the Allied camp, it was generally assumed that Turkey would be used as a base of operations for flights over the Rumanian oil centers. In anticipation of this I set up a base in Stara Zagora in Bulgaria, near the Turkish border. Three radar intercept stations were transferred there as well. This platoon never became operational because of the Rumanian-Bulgarian collapse. The sites were evacuated without loss of equipment and personnel.

Experiment with a Radar intercept Aircraft Summer 1944

In order to counteract the extremely numerous supply dropping operations for the partisans in the Balkan countries, a squadron of night fighters was transferred to our section. But as it was not equipped with GCI to home the night fighters on to their targets, the missions throughout the vast stretches of country were without success. Because a set up for ground control of night fighters would have been too extravagant here, I was pressed repeatedly to find some way by which the night fighters could be directed to the enemy planes. I saw a possibility for such a thing in the course of studying the "Eureka", a device used by the supply dropping planes. These planes were tracked by our stations through their IFF and Eureka which were similar in performance to those used by the long range recce planes. My plan was to guide the night fighters to positions from which they could intercept the enemy planes, by the use of a radar intercept aircraft. After interminable wrangling with Berlin, a Ju 88 was finally placed at my disposal. I had two VHF receivers, a Naxos and a Samos, built into the aircraft, together with the antennas they required. The route of the supply dropping planes was to be ascertained by Flamme and Eureka D/F's from the radar intercept stations, and passed on to the radar intercept plane on its regular tactical frequency. The VHF antennas on the Ju 88 were so installed that reception was assured by the Samos receiver, and the signal could be D/F'ed by changing the course of the plane and watching the Naxos receiver. In this fashion it would have been possible to home on supply dropping planes which were in turn being controlled from the ground. Satisfactory tests were made with a captured Eureka installed in one of our own planes, and the finally completed Ju 88 effected airborne radar interception. But on the very night of the first planned mission, a fighter bomber attack on Pantchova airdrome destroyed among other things the radar intercept Ju 88 I had had such trouble acquiring and fitting out. And the worst of it was, that this was the first and only such attack on this airdrome.

"Meddo" Second half of 1944

A few weeks after it had been established that the RAF Bomber Command was using panoramic pathfinder devices, it was assumed quite correctly that the 205th Bomber Group must be using it too. So a Korfu 812 was set up near Ploesti. One day when the American bombers flew in on a mission over the oil center, the Micky turned up on the mirror frequency of this D/F set. This proved that the 15th USAAF also used

the panoramic device in flight. Therefore I tried to get my station equipped with a Korfu D/F 224 (the number gives the wavelength in tenths of a millimeter for which the set is built), but Berlin gave me no support in this matter. I was nevertheless successful in getting the equipment through the Fighter Controls. In the beginning, when R/T intercepts enabled us to determine the exact time over target, and to tell when to turn the Korfu sets on and off, we had good successes. But when the 15th USAAF started with its night missions and had regular night practise traffic on the air, the Korfu showed its deficiencies, as the magnetrons it used were limited to a life span of 150 hours, and the bombed-out German vacuum tube industry could not deliver any replacements. On the other hand intercepting Meddo was the surest method of being advised of the presence of the American night-flying bomber formations, who held during their mission complete radio silence, as they were only groups of pathfinder planes. I put on all possible pressure to get Naxburg sets; they had no magnetrons to go out, a greater range (up to 400 Km), and the possibility of measuring the altitude up to distances of 100 Km. The Naxburg was a Wuerzburg without the high frequency component. In the center of the parabolic reflector a dipole was placed, tuned to the critical length of the frequency to be watched. The signal picked up was put through a crystal detector and an audio amplifier, which fed a pair of earphones. The signal was D/F'ed for an aural maximum. The apparatus had the disadvantage of being of fixed frequency and increases in the number of impulses could only be sensed in the earphones from appearances. This disadvantage did not affect my purposes, as I was not making researches but only measurements. As the Chi-Stelle would not allow us this equipment either, I also obtained some by way of the Fighter Control centers, which had a lively interest in flight path tracking, and equipped all my stations with it. The British Magic Box we first nicknamed "Rotterdam", but later, when Goebbels made public mention of this in a weekly article in "Das Reich", in which he gave away some information, we changed the cover-name to "Laubfrosch". It worked on 9 centimeters, and the Meddo operated on 7,4 centimeters originally. Later the Americans brought out a Meddo on about 2,4 centimeters, for the interception of which our industry never managed to produce a receiver, due to shortages of materials and vacuum tubes. No other radio counter measures were turned out against this set. But by shortening the dipoles on the Naxburg set we could cover it, however, and thus we guaranteed the flight path tracking of the southern units. Thanks to the installation of Meddo on the weather-recce Lightnings during the last weeks of the war, the next day's target for the 15th Air Force could be predicted for our High Command. The recce planes would turn on a special function of the Meddo when they were over a target area, probably to take photographs, and this produced a more rapid rate of impulses, which could be heard in the earphones

of the Naxburg. As the position of the recce plane was always to be ascertained by D/F, it was easy to determine what prospective target it was working on. In the closing period of the war, every raid of the 15th Air Force confirmed our advance warnings from this source.

Increase in Partisan Activity Middle of 1944

The problem of supplying my scattered and isolated teams became increasingly difficult as a result of the sharp rise in Partisan activity. Soon it was almost impossible to furnish certain outposts with the necessary cryptographic material for communications. As a consequence of certain reports having fallen into enemy hands, we expected to have the British change their signals procedures from one day to the next, and put into effect a more frequent change of frequencies and call signs, to supersede the still beautifully systematic practices of the Groups, the Wings, and the Fighter and Reconnaissance units in Southern Italy and the Balkan Air Force. But it appears that these valuable documents never found their way to the man on the other side who would know what to do with them. Sets were lost repeatedly while on their way down to the outposts. My higher echelon in Berlin was always very testy about such circumstances, and demanded an accounting, never stopping to consider the conditions under which my men had to effect these deliveries. Sometimes they were en route for weeks at a time. During the last six months of its operations, the S.I. company in Tirana could only be reached by air.

Captured Documents

Whereas we ourselves were to suffer no immediate consequences when our reports went astray, nevertheless, we derived great benefits from the documents and SOI's captured from planes which were shot down or had to make an emergency landing in our territory. Lists of aircraft call signs taken along in the planes contrary to orders saved our evaluation company many a headache, and our operators many an hour on the search receivers. Because of the great importance of captured documents, I had the Commanding General put out an order that all enemy communications equipment or notations by enemy airmen found within his territory could only be processed by the SIS. Since my outposts were scattered all over the Balkans and were always tied in to the nearest switchboard, there were never any difficulties encountered in notifying the nearest signal intelligence post. VHF receivers of which we in the Balkans were always in the direst need, would be removed from the wrecks and adapted for our uses, provided they were in good enough condition.

PW Interrogation

In addition to equipment evaluation, the SIS also took part in prisoner of war interrogations. A Signal Intelligence Liaison Officer was sent for this purpose to the PW collecting point south. The American soldiers had been well trained in security, and behaved in such exemplary fashion that we expressed the hope time and again that our own soldiers behaved with the same discipline and disinclination to talk. The fact that in spite of this we extracted some good information

was because the prisoners were bluffed into thinking we knew more than we did; and so we filled in the gaps or confirmed things about which we were not certain, during the course of an interview.

Party children
Middle of 1944

By way of my commander I received a letter from an Obergruppenfuehrer in the SA (General of the Party), who was at the same time town councillor in Vienna. He complained bitterly therein because his son, a soldier of my battalion, was not yet an officer. I was required to answer by indorsement. In my reply I made it no secret that I did not promote a man because of where he came from, but because of his character performance, and above all his ability to lead men. I included an estimate of his son's worth, laying particular emphasis on the weaknesses in his character, and sent the letter back through channels. Some days later my commander called me in to see him, went over the letter, and expressed his satisfaction with the stand I had taken. At the same time he informed the solicitous father of his opinion of this sort of interference with the affairs of the military.

20 July 1944

With the greatest surprise we learned through the German Broadcast of the unsuccessful attempt on the Fuehrer's life on July 20, 1944. None in the Southeast sector had any idea of the true circumstances. The conspirators had made no connection with the Balkan Army. The rank and file of the soldiers were generally overwhelmed by the attempt to assassinate their commander-in-chief. We learned only so much of the motives of the conspirators as the German press thought wise to reveal. Goering's order to do away with the traditional military salute, substituting the Nazi salute, caused a certain amount of bad blood, particularly among the older officers. The Army was chagrined by the appointment of Heinrich Himmler as commander in chief of the Reserve Army, because this meant that all the best personnel replacements would go to the Waffen SS.

Nazi Party "political commissars"
Late summer 1944

In consequence of the rapid rise in the Party's influence on the Armed Forces, there was created the post National-Sozialistische-Fuehrungsoffizier (Nazi political commissar). This was one of the last desperate measures of German State leadership, which in the mobilizing of all its defensive instincts, was betraying even more clearly that the war was lost. The common soldiers were most indifferent to this innovation. The idea of saturating the Armed Forces with politics at the last minute was defeated at the start. If the Party really wanted to make German soldiers political soldiers, it should have begun in 1933. Now, every political shot-in-the-arm administered to the weary and half-beaten down organism of the Army failed to produce its effect. These Nazi political commissars were almost always reserve officers only of low rank who had been party members for a certain length of time. They were incapable as administrative officers, and produced the opposite effect on the men from that for which their job had been

created. My NSFO was a man of no particular intellectual training, who was a total loss to me as an intelligence officer, and confined himself to unimaginative repetitions of party slogans in hackneyed party rhetoric when he delivered his occasional political pep-talks to my men. It was already a hard enough job to engage in any whole-hearted propaganda for the Nazi cause, and it would surely appear hopeless to try to foist it on men who every hour of every day had before their eyes in unmistakable clarity the whole enemy situation in its overwhelming might. A large percentage of my men were from the higher professional class, knew foreign languages, had lived in foreign countries, and were in only too good a position to form their own opinions of the situation. When this NSFO began to get on my nerves, I started taking cautious steps to get rid of him. Caution was in order, as these officers later were given disciplinary powers. One day when he repeated once more his old wheeze about economizing on rear echelon personnel in such outfits as ours, I took him at his word and had him pushed off on to a combat outfit at the front. I had my adjutant appointed as his successor. He used his position principally to get hold of Special Service equipment for the teams in the different outposts.

Treachery of Rumania
Late summer 1944

Anyone going through Bucharest with his eyes open could see that a small spark was all that was necessary to start a political explosion. The same impressions were to be formed anywhere one looked in public everyday life, as one could see during the invasion of France, with the difference that here they were intensified by oriental indecency. While a transient visitor was beset by a host of petty difficulties in matters of food, quarters, and money, the staffs permanently stationed there led a most carefree and unblushing life of luxury. The respect that the German soldiers, and especially the German officer, had won for him-self among the Balkan peoples was thoroughly disintegrated by the foppish and idiotic manifestations of the Nazi party, and the active part the rear echelons took in furthering the general corruption. Here the criminal incapacity of the German authorities to pick the right men for the jobs at last came home to roost, and the most evil harvest of the whole war was at hand. On the very day before the change-over, the German minister in Bucharest made public declaration that all was in the best of order, although the lowest buck private could tell that disaster was brewing. Despite the warnings of coming danger in this quarter, passed around months beforehand, on the day of Rumania's change of heart most of the administrative personnel were still living in private billets. The consequences of Rumania's move were the bitterest losses for us. I lost half a company and a lot of valuable equipment which was just in transit at the time. While the higher ranking officers succeeded in reaching safety by plane, the whole personnel of the staffs fell into enemy hands. In this manner, one of my best SI liaison officers stayed behind in Rumania. But, on the other hand, some of my capable Tech. Sergeants succeeded in beating their way through the

insurgent country with all their men and equipment, and reported to me. I put them right to work again at stations in Hungary.

Advances of the Russians Autumn 1944

After the treachery of Rumania and Bulgaria, the loss of Serbia was only a matter of weeks. My principal worry thus became the evacuation of the Greek islands and the safe retreat of the intercept company in Athens. After extensive arrangements were made many times over with transportation offices, I was finally successful in getting the almost unobtainable shipping space and air transport facilities for my men and their equipment, and we evacuated every station in the Aegean, except Milos, without losing a man. The out-station on Milos, indispensable for watching ASV and shipping movements as long as there was a German ferry still in the Mediterranean, was finally evacuated by seaplane. The company in Athens retreated in vehicles. Most of their relatively unimportant equipment, which was put on a ship, was sunk by a British submarine near Salonika. The company's retreat was beset by constant partisan activity, bombings, and low flying attack. After six weeks, it reached the homeland. Its next site was south of Marburg, in Styria.

Transfer of the Battalion to Premstätten Fall 1944

As the Bolsheviks advanced toward Belgrade, I transferred the two intercept companies, the jamming company, and the evaluation company to Premstätten, near Graz, where I had already prepared for this eventuality some time previously, by setting up a base of operations. I stayed on with the battalion hq., the flash report evaluation section, and part of the Meldekopf, in Pantchova, where my southward and eastward lying out-stations were to withdraw. I also left the three especially well-situated HF and VHF D/F's which were to remain as long as possible where they were. When the Russians began closing in the partisan activity became so dangerous, that a standing guard of twenty heavily armed men had to be detailed to protect the D/F stations. I took turns being duty officer with my three remaining officers. On the first of October 1944, we had to abandon Pantchova. The crossroads behind the city already lay under the fire of the Russian artillery. The Fall rains began. The spectacle of retreat along the soft, muddy roads, with tens of thousands of refugees, old men, women, and children pressing on was a most frightful one. These particular refugees were the Banat Germans, who had been guaranteed by the Party people shortly before the collapse that we would hold the Banat at any price. And now the fate of this last of the German folk-groups was sealed. My retreat was punctuated by a few instances of vehicle breakdowns, which were all repaired satisfactorily, and otherwise we had no trouble on the trip. I arrived in Premstätten on October 4, 1944.

Setting up in Premstatten October 1944

Thus I found myself once more on German soil, after three and a half years in foreign lands. How different everything was from the time when the then Colonel Gosewisch had sent me to Athens. I saw what was going on with the sober eye of a soldier. We were now defending our homeland. My battalion was respected by all the staffs in the South. In the

air war in this sector, no plans were laid or operations contemplated without my men's work playing an intrinsic part. I held them aloof from all the vices which afflicted troops in the rear. When my company in Tirana, surrounded by partisans, beat its way through to Germany after weeks of fighting with the guerrillas, the commander of the combat group they were attached to told me that but for the untiring courage of my men, and the circumspect leadership of my two officers who were wounded during this retreat, the combat group would probably have been annihilated. I myself lived according to the conscientious and disciplined manner of the old Reichswehr soldier. No political discussions or arguments about the military situation were permitted in my officers' club. Weaknesses and lack of understanding, even on the part of my superiors were always combatted by me, and for it, I had the respect of the man at fault. My rise in the service was not easy. The Luftwaffe Signal Intelligence Service in the Southeast was the handiwork of myself and my men. So we felt no guilt or responsibility for the way things had turned out. On the contrary we knew that now serving in the homeland, our services become even more significant than they were among a foreign population.

This made it all the more difficult for me to understand the attitude of Dr. Uiberreither, the Gauleiter of Styria, whose inimical feelings toward the armed forces in general, and my outfit in particular, had been reported to me by my officers. As soon as I arrived in Graz, I went right to him to settle personally with the proper authority the most pressing problem of billets for my men. The visit exceeded my worst expectations. This young man bellowed at me that in his Gau he was running the war, and the armed forces could occupy no permanent billets, and besides, it was up to the Army to do what the Party told it, etc. He wound up his oration by telling me that I could take my soldiers and crawl into the ground with them. He had never been a soldier a single hour of his life, and had long had two or three castles held in readiness for himself and staff as alternate offices. When he saw that the game was up, he came to heel like any other coward. His Kreisleiters operated with the identical arrogance, lack of comprehension, and idiocy. This superabundance of responsibility that was heaped upon them in this organization of military and civilian duties seemed to have knocked the bottom out of their already very feeble sense of actuality.

Playing the vanity and foolishness of the Gauleiter against each other, we finally by sheer gall, brought him around to letting us have a hotel that had been requisitioned for the Hitler Youth, until we could get set up in barracks. The signal communications in Premstätten were another most serious impediment. My suggestion to transfer the battalion site to a big overland cable switching point in Salzkammergut was disapproved by the Marstall without a moment's investigation of the problem.

Retreat of the Intercept Company in Tirana Middle of October 1944

In the middle of October, the partisan situation in the Balkans became so acute that it appeared high time to withdraw the intercept company in Tirana and its out-stations, scattered along the Adriatic coast. Because of the vital importance of the company's work in tracking the flight paths of the 15th USAAF, the movement orders had to issue from a higher headquarters. I kept in constant touch with the company commander, who constantly sent me signals describing his position, which was getting more and more dangerous and finally looked hopeless. But everyone of my superior officers, whom I asked to take the responsibility for the movement order, refused. Thus the company lost priceless days. Finally when they were completely surrounded by partisans, I ordered them to leave their equipment and vehicles and fight their way through the Balkans to Germany, by joining forces with one of the last combat units to remain in the Balkans. The retreat cost dead, wounded, and missing. The enlisted men received Iron Crosses from the commander of the combat unit, but it took six months to get General Martini to give the Iron Cross, 1st Class, to the brave company commander, who was wounded in this action.

Out-station Bosnisch Novy

After I lost my out-stations in the Adriatic, I set up a team in Bosnisch Novy, Bosnia. Completely surrounded, and several times besieged by guerillas, it held out only six weeks before it too was forced to retreat by the continued attacks and the lack of food supplies.

Intercept Platoon Agram Second half of 1944

Near the Croatian capital there had long been an intercept station providing information for the Air Commander. As all my outlying teams had been called in, I increased the strength of this platoon considerably. Because the foolish German financial policy in occupied countries was upheld to the end, the outfit suffered great food shortages in the midst of this rich country. In Croatia there was also a Balkan inflation of prices.

Formation of the Signal Intelligence Reg. 352 (South)

In October 1944 it was finally decided to form a Signal Intelligence Regiment for the South. At this time, when the Balkans were lost and the general situation pointed towards the end, it was a little late to be forming a regiment, which would have had more meaning two years previous. My superiors had had a long fight on their hands before they succeeded in having me given command of the regiment, particularly as a collection of old Signal Corps colonels, whose outfits had just been dissolved, were gunning for this job, as they had no assignment. Thus the four companies in Italy came under my command also. At first I had some difficulties with this Italian battalion, which had never had a Signal Intelligence specialist as commanding officer before. After the Signal Intelligence Battalion Reich made a mess of things for months on end with Meldekopf Vienna, it was turned over to me, and with it the out-stations of Rax and Kanzel in the Austrian Alps. I placed the

Meldekopf company and the expanded evaluation company, now working for the whole regiment, under my command alongside of the two battalions. To make the quality of the work more even, I introduced widespread shifts in personnel. I put my best signal intelligence officer in command of the Meldekopf, which had formerly been commanded by a young 2nd Lieutenant who had never been connected with Radio Intelligence. I put my two excellent radar intercept officers on temporary duty with the 1st Battalion, whose radar intercept had never amounted to much, and transferred a large part of the most expert senior NCO's from the evaluation company of the 1st Battalion into my regimental evaluation company. I inherited my regimental headquarters staff from an old colonel who had been made available for reassignment, who had been all along my bitterest rival in the political struggle for command of the regiment. The personnel at first showed some hostility to me, but later served me notably well.

Meldekopf Vienna
End of 1944

In order to give the Meldekopf a more secure position, I transferred the heavy bomber intercept to Vienna, not without difficulties created on the part of the Gauleiter and the Kreisleiter. The Meldekopf at that time was located in a small room in the cellar of the Luftgau building, so unhandy that there was no room for the most essential tables and no place to put the telephones. After a few hours' stretch of work the men and girls working there felt ill, as no ventilation was provided. And this was the appearance of the famous Meldekopf, which had so long been kept away from my jurisdiction. The first thing I tried to do was to get the Gauleitung to find me another place, as they were responsible for quarters. After long, unpleasant negotiations, I was assigned two rooms in a flak tower. Since it was up to engineering and construction officers to take over from there, and adapt them to my use, this work was completed just in time for the use of the Russians, when they entered Vienna. I set up my two W/T companies on the Schafberg near Vienna. Here again I had the most shameful rows with the minions of the Party and the organization Todt. The latter were somehow unable to finish laying a few kilometers of high tension cable, and putting up a few masts in a nearby wood. When I sent my own men to help them out, they threatened to shoot us. The atmosphere in which business was done in administrative circles in those days bordered on bedlam.

Radio Maintenance
End of 1944

After the formation of the regiment I was using between 80 and 90 transmitters in my communications nets. So I formed a team, consisting of an officer, a radio mechanic, and two W/T communications men, whose mission it was to visit the out-stations regularly, inspect and improve their installations, check on the D/F sets, and initiate the W/T communications operators into the use of the new cryptographic material and the new SOI. In addition, they checked on the traffic of the net control station from the out-stations' end. I had the officer draw up a report on each out-station, which was to include all the

difficulties that the out-station chief was faced with. This team was a most gratifying venture. The communications net of the regiment was exemplary from the point of view of radio discipline; this was given a double check by means of a receiver in the staff office, which enabled us to monitor.

Activation of an SIS Division End of 1944

Felicitous as the grouping of the S.I. battalions under the three S.I. regiments turned out to be, the separation of operational and administrative command in a S.I. division was a serious error. It would appear that even after five years of war, General Martini had not learned the necessity of omitting a fault in the organization of the SIS Division that he already had had to abolish in the SIS battalions. So in this new set-up, the regiments had two masters, each of whom took advantage of every possible opportunity to shove responsibility off on the other, or if that didn't go, onto one of the regimental commanders. And on top of this came the unfortunate organization under the Funkaufklaerungsfuehrer Reich (Chief Radio Intelligence Officer, Reich), which was entirely without influence in the south. Why hadn't they formed a S.I. Division right away, with operational and administrative command in the hand of one man, who in turn was also commander of the ZAF? The reason was in order to create a T/O which would provide a place for an incapable and superfluous general, and some of his satellites. The officers who had risen in the SIS were considered too young by the old men of the Signal Corps, who despite all their sad experiences with veteran reserve officers and administrative officers innocent of a technical background in signal corps work, still persisted in holding down the best brains in Radio Intelligence, or allowing them to fall into obscurity as the losers in a game of petty intrigue.

Personality of Lt.Col.Friedrich

At this point it is in order to make mention of a man who had been the real head of the Signal Intelligence Service since the middle of 1942. When the then Major Friedrich of the General Staff took over command of the Chi-Stelle des Ob.d.L., after a succession of predecessors as corrupt as they were incapable, everyone had for a time the impression that at last the right man was in the right place. By virtue of his close relations with the Luftwaffe High Command, as he was for a time General Jeschonnek's collaborator, and Jeschonnek had been for years chief of the Luftwaffe General Staff, the Chi-Stelle became for the first time a central and authoritative organism of command, over which no Luftwaffe A-2 could set himself any longer. Friedrich brought along new ideas and points of view to Signal Intelligence operations from his General Staff experience. He deserves most of the credit for the close liaison we enjoyed with the High Command. He gave the ideas and experiences of the specialists a hearing, backed them up without considering himself, and accepted and

acted on good suggestions that were offered to him. Unfortunately he failed to continue his high promise. I have the feeling that after 1942 the highly specialized departments of the Signal Intelligence Service grew too much for him to keep up with, technically as well as from the viewpoint of personnel. He often admitted that technical matters were fundamentally incompatible with his being, and as a General Staff officer he had had no Signal Corps training. But the worst feature of all was that he was unable to introduce any rational policy into the Signal Intelligence Service methods of assigning personnel. He never understood the situation enough to relieve the tension at the beginning of the war between the old civil servants, who had been in for years and had become mostly parasitic growths, and the young blood which had just come in, and had proved itself worthy. The old guard had built an impregnable political stronghold for itself in the Marstall, and taken care of its own by giving them all the key positions. Another shortcoming was his failure to bring it about that this service, becoming ever more specialized, should be commanded by men who were familiar with these specialties. He was much more likely to depend on commanders who knew less of the actual interests of the Radio Intelligence Service than he himself, but who had no idea whatever of the purpose and mission of the service, which of course they themselves should have been duty bound to represent and stand up for. Moreover he filled his staff with his own gravediggers, advisers who did not measure up to the responsibilities they held, either as people or specialists, but who nevertheless knew how to play up to their chief, whose mind was always on a thousand different things and who was fundamentally too good-natured. A branch of the service which included the cream of German intelligence, and which called for the highest degree of mental sharpness, technical ability, and knowledge of the world and the people in it, should have had a chief who was made differently from this professional soldier, whose horizon and ability never rose above the level of a good company clerk. Friedrich knew himself well enough to turn down the command of the Signal Intelligence Division, which was offered to him. His inability to make up his mind was at times most paralyzing to the dispatch of business. I can remember battalion commander's conferences during which it was disputed for three days under whose command a certain D/F station should be. He always insisted in particular upon clear thinking and decision on the part of his subordinates, but whenever one sent him a teletype for an order, one would come back which was as cautious as the Delphic Oracle, and always placed all responsibility on the recipient. In his person he was above reproach, but he was too easily influenced by his subordinates. The extent of his indecision may be demonstrated by the fact that he left his wife and daughters in Berlin to fall into Russian hands, although he knew better than anyone how the situation was developing, and could have rescued them easily even at the very last moment.

End of 1944

I spent Christmas and New Year with my outlying stations in Hungary. I made it a practise never to announce my inspection trips to anyone in advance. I notified the adjutant when I arrived at my destination. These expeditions were not very well liked by my battalion and company commanders, because I jumped on whomsoever I found responsible for neglecting things in my regimental orders, regardless of who he was, and allowed the shortest possible time only for correction. I was equally generous with my praise when everything was in good shape. This time I descended on troops who had apparently been entirely forgotten in the confusion of the many moves. These men had been in the outermost forward stations in the southeast ever since operations began there, performing the most demanding type of service, without furloughs for two years, and were almost all overdue for promotions for an even longer period. I did everything I could to make up for it right away; but the heart felt thanks of these poor devils, who incidentally through this unexpected visit were able to get their holiday wine and smokes, is the finest Christmas memory I have.

Fighter-Bomber-Attacks
January 1945

As the German air opposition became more and more paralyzed, the fighter-bombers of the American TAF raided Austria unopposed, and brought transportation to a standstill as far as Linz and Salzburg. Therefore I set myself the task of organizing a fore-warning service for the Alpine area, so that industry, transportation, and the civilian population could reap the advantages of it. My suggestion was to set up MF transmitters near the Gau capitals of Linz, Graz, and Salzburg, as well as Agram and Marburg, and have these transmitters broadcast air raid warnings in the clear to their respective Gaus. Attached to each of these transmitters was to be a small Meldekopf. The prerequisites for this were a VHF D/F base line, a communications net, and the availability of a few VHF receivers. The difficulty of obtaining materials was too great at the time, and Berlin took too long to think it over to put the plan into effect. My worst shortage was VHF receivers. One company in the West had at the time more operational VHF Sadirs than I had in my whole regiment.

Move to Attersee
Beginning of 1945

When the Russians succeeded in making their first break through into Styria in the beginning of 1945, and Graz seemed threatened, I finally got Berlin's permission to move to Attersee. I had planned this for months, and ever since Pantchova I thought of it as the one sensible place to be, because the only land lines that went from Preanstätten to the Reich were always being interrupted by air attacks, whereas Attersee was right at the central crossing point of the land lines connecting with the west, north and south. The operational rooms and billets the Gauleitung assigned us were very satisfactory, in fact just about my best of the whole war. I ordered communications transmitters and message center radios built into vehicles; so four or five heavy and medium transmitters were set up in a bus. After we

left Vienna I built even the Meldekopf into a bus. In this way the most vital components of the regiment were no longer tied down to any particular locality, and were operational at all times.

Dissolution of Referat C January 1945

At this time the rest of Referat C was transferred to me, as the Russians in the course of their offensive were cutting ever deeper into German territory, and the situation of Berlin was becoming critical. Some of the men were ordered to take part in the defense of Berlin, and what was left found refuge in my regimental evaluation section. A number of the girls in the Marstall came to my evaluation company, and some were transferred to the most centrally-located fixed Signal Intelligence stations in the middle of the Reich. When Upper Silesia was lost, many of my auxiliaries lost their homes. The depressed state of morale which affected all my personnel on this account forced me for the first time in my career to throw off my reserve. I called a formation and made an attempt to pull them out of their depressed state, by pointing out to them the frightful consequences of a totally lost war, and said that the only way out of our desperate situation was to stay together and maintain good discipline.

Retreat from Vienna beginning 1945

In the middle of the regiment's move from Graz to Attersee, which was taking place without friction, and in leap frog fashion, I learned of the evacuation of Vienna. Thereupon I changed my destination immediately, and drove to the Meldekopf Vienna, which was not yet motorized and whose irreplaceable material must not be lost at any price. Thanks to the organizational ability of the chief of the Meldekopf company, Oberleutnant Koch, the transfer was already in full swing by the time I arrived in Vienna. While most of the staffs and offices that were evacuating did not bother about their girls any further, Lt. Koch succeeded in evacuating 150 of his girl auxiliaries with their belongings.

On the way back to Attersee, I could observe the evacuation of the rear echelon troops from Vienna at very close quarters. Most of these wearers of the uniform had abandoned all feelings of honor and duty, as a result of their years of mental idleness and self-indulgent excesses. As an old soldier, the thing that shocked me most was the treatment of the girls who had been working for the Armed Forces, now turned out on the street by the lazy staffs which up to that time had been taking cruel advantage of them. Without any possessions, mostly without a home, these girls were left to their destiny along the road of the retreat. As long as I had room for another girl on one of my vehicles, I took her along. Up to the last minute, I held myself responsible for the safety and good order of my auxiliaries, in opposition to an order to the contrary from the Luftwaffe High Command.

Officers' Training February, 1945

Since I as regimental commander was responsible in high degree for the training and development of my officer corps, I had all the

officer-aspirants in the regiment attend an officers course, so I could see what kind of soldiers they were, and give them the opportunity to get a basic training in Signal Intelligence and radar intercept work. Upon inspecting the class, I found I had a number of privileged characters on my hands. One had an uncle who was a general, and who telephoned me every fortnight to find out how his nephew was doing. Another was related to the Gauleiter of Munich. A third even enjoyed some connection with a well-known female movie star, who used to help him out by influencing key officers. From the very first day, I made it quite clear to these people that I was not the least bit interested in their exalted connections, which would do them no good in my organization, as they would be judged solely on their aptitude for the work and their merits as men. The course ended with the privileged characters abandoning their intention to become officers. This of course meant that I would be forever in the bad books of these highly influential circles, who became more capricious in exercising their influence, the more plainly their days were numbered. The rest of the class gave promise of becoming capable Signal Intelligence officers.

Life in Officers' Clubs

I have always been an enemy of the life in officers' clubs. I have seen too much that proved demoralizing in these clubs, during my long service, to tolerate officer-club morals within my command. When I was company commander I ate at the same table with my noncoms and men. I disapproved fundamentally of the idea that officers should have their food more carefully prepared than enlisted men. Later, when my post expanded, I erected a modest officers' billet for the sake of appearances. But drinking bouts and orgies did not take place there. During the whole war, I remember only four parties in which I participated but to which however attendance was more or less obligatory; yet no one can accuse me of being a foe of wine or good company. I simply had a fundamental prejudice against the empty tradition of the drinking-bout, which was unfortunately so conscientiously carried on where the older officers were in command. This type of commander was all too apt to judge his younger comrades according to their qualities as drinking men, and not according to their value to the service. This attitude cost me many an unhappy brush with my old regimental commander in Athens, and I came out with a whole skin only because General Gosewisch felt the same way about it as I did.

General Staff Officers

I have nothing but respect for the old General Staff officers who were formerly on the General Staff of the Reichswehr. They were personally above reproach, dignified, and the incarnation of the severe, self-denying soldier. The successes of the first years of the war were due to these men. The new blood however, which during the war was transformed by ever more abbreviated courses into wearers of the striped trousers, radiated ignorance and conceit. I was several times a witness to the appointment of some of these young officers to the General Staff. It bore a striking similarity to the promotion to sergeant in the old

Reichswehr. The young man who had just received his red stripes became so haughty that he no longer recognized his old friends.

The course of instruction in the General Staff School was confined to Officers' Club etiquette, history of art, and the history of ancient campaigns. Nothing really useful was taught these student officers, who were picked for the most part because of personal connections. The way in which they became hermetically sealed into the bosom of the High Command Officers' Club also had a ruinous effect. The decent young officers generally did not prolong their career on the General Staff, but employed every device to return to the units at the front. My personal experiences with the new General Staff officers were notably unfortunate.

Inspection of the First Battalion March, 1945

A few weeks before the collapse I paid a visit to the 1st Battalion, which at the time was stationed in Canazei in the Tyrol. Since the beginning it had worked by the side of my outfit in covering the Mediterranean. Although its NCO's were much superior to those of the Southeast, as they were of the old key personnel of 1938-1940, because of their poor and unpurposeful leadership, its performance was most uneven. The officer corps had so degenerated through years of soft living in the best hotels, imbibing the good Italian wine, and maintaining the general pace of the officers' clubs, that after the fall of Sicily they had to be relieved almost in toto. Unfortunately the Marstall exercised its customary bad judgement in the selection of replacements, which turned out to be no great improvement. The fact that the collapse came before I could clean up this situation is I think the only thing I regret at the war's end, since it was the one job I left unfinished.

For the first evening after my arrival in Canazei, a well-rehearsed routine was acted out for my general edification, which was rather abruptly brought to an end by some caustic comments on my part. From the point of view of Signal Intelligence, there was not much to be expected from this battalion. I immediately organized urgently needed close range intelligence operations to serve our Army Divisions, but this was never accomplished, due to the premature collapse of the Italian front. The guerillas and partisans in the Alpine valleys became most threatening in their activities. They seriously endangered the supplying of troops. One of our couriers was shot by partisans during this time.

Committing of Jet-propelled Planes March, 1945

Shortly before the war's end I was asked to a conference at the 8th Fighter Division headquarters on the plans for operation of the jet-propelled fighter. At that time, three to four squadrons of jet-fighters were to be transferred to the Southeast. I hoped that this operation against the fighter-bombers which were paralyzing all transportation, would be the last great feat of arms of the German Luftwaffe. The most accurate and swift reports would be needed to

assist the controller of these planes, because of their great speed. The rapid advance of the American Seventh Army made all these preparations of no avail.

Volkssturm

As the enemy was advancing into the Reich, the Volkssturm was called up in all districts. In most cases it was criminal to send unarmed old men and small children, who had had no military training and were without military leadership, against a battle-wise and superior enemy. What made me most sorry for these poor people who thus had weapons forced into their hands, was that they were not being commanded by officers, to which the veterans among them were accustomed, but rather by men of the Party. I had ample occasion to see this situation with my own eyes, in the course of my many trips to the front. I saw how the Graz Volkssturm was armed. The old guns captured from the Italians, with five rounds apiece, did not even suffice for a quarter of those called up. In spite of this, they were supposed to hold off the coming Bolsheviks, under the orders of an insane Gauleiter who himself resigned in good time.

The End

As American forces were advancing into the Salzkammergut, the regimental staff with two companies moved to Steinach, Bavaria, to avoid capture. Two days later followed the signing of the unconditional surrender agreement, whereupon I took my men to the GAF Concentration Area in Aschbach, Bavaria, on order from Luftflotte 6, responsible for this area. The remaining units of the 2nd Battalion collected here one after the other. The 1st Battalion fell into British hands at Canazei. The auxiliaries were interned in a camp near Bologna, and the men were carried off to Naples. The stupefied RAF officers thought they had uncovered an espionage organization.

Some weeks ago I was released from PW status. I hope soon to be able to find a place in civilian life, which I wanted to do eight years ago. Life has become bald and naked in Germany, and everything will be reduced to a struggle for the bare necessities of life. A feeling of profoundest political unrest dominates the land, which by losing the war has sunk from the ruling power of Europe to a mere geographical entity. The character of the German has become more uncertain than ever, as the Wehrmacht, the fountainhead of order, propriety, and discipline among the people has been destroyed, and four such different countries as France, England, America, and Russia all have the praiseworthy intention of reeducating them. I am not sorry to hear of the indefinite internment of the German General Staff. I do not believe that the younger members of this organism anyway will constitute any great loss to the German Nation. However, I do fear that all Germans who fall into Russian hands are forever lost to any kind of life in a European Community of Nations. Whether there ever is such a thing will depend in large measure on those to whom our heritage has been passed on. For my own part, I hope to build with my hands a modest existence for myself and immediate family, in my own country.